

REMARKS

This is a full and timely response to the Office Action mailed October 4, 2004.

By this Amendment, claim 1 has been amended to incorporate the limitations of claim 3, and claim 5 has been amended to depend on claim 1. Further, claims 3, 4 and 6 have been canceled with prejudice or disclaimer to their underlying subject matter. Support for the claim amendments can be found throughout the specification and the original claims. Thus, claims 1, 2, 5, and 7-14 are currently pending for the Examiner's consideration, with claims 7-14 being withdrawn.

Applicant believes that all pending claims are in condition for allowance. Reexamination and reconsideration in light of the above amendments and the following remarks is respectfully requested.

Rejection under 35 U.S.C. §102

Claims 1 and 2 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Xue et al. (WO 00/73227). This rejection has been overcome by the incorporation of non-rejected claim 3 into claim 1.

To constitute anticipation of the claimed invention under U.S. practice, the prior art reference must literally or inherently teach each and every limitation of the claims. Here, in this case, Xue et al. do not teach the claimed limitations *“said one or more low boiling point solvents are selected from the group consisting of ether solvent, ester solvent, and hydrocarbon solvents; and said one or more high boiling point solvents are ether solvent”*.

Xue et al. discloses, on page 3, lines 21 to 23, that “[F]irst nitrocellulose is dissolved in a high vapor pressure solvent such as amyl acetate (an ester solvent: boiling point: 121°C) or ethylene glycol monoethyl ether (an ether solvent; boiling point: 136°C) to make a solution. Next, the solution is mixed with alpha-terpineol.” Amyl acetate (boiling point: 121°C) and ethylene glycol monoethyl ether (boiling point: 136°C) correspond to the low boiling point solvent in claim 1 while alpha-terpineol which has a boiling point of about 214°C, corresponds to the high boiling point solvent in claim 1. However, alpha-terpineol is an alcohol and not a ether solvent as required in amended claim 1. Therefore, Xue et al. fails to teach or suggest all the limitations (i.e. *“said one or more high boiling point solvents are ether solvent”*) of the claims.

Thus, withdrawal of this rejection is respectfully requested.

Rejection under 35 U.S.C. §103

Claims 1-6 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable Wang (EP 722179). Applicant respectfully traverses this rejection.

To establish a *prima facie* case of obviousness, the cited reference must teach or suggest the invention as a whole, including all the limitations of the claims. Here, in this case, Wang fails to teach or suggest the limitations “*said one or more low boiling point solvents are selected from the group consisting of ether solvent, ester solvent, and hydrocarbon solvents; and said one or more high boiling point solvents are ether solvent*”.

Wang discloses on page 7, lines 21 to 24 that “[T]his solvent must also have a boiling point that is lower than any of the other additives contained in the composition. Examples of such solvents include acetone (56°C), xylene (about 140°C), methanol (65°C), ethanol (78°C), isopropanol (83°C), methyl ethyl ketone (80°C), 1,1,1-trichloroethane (74°C), tetrachloroethylene (121°C), amyl acetate (121°C), 2,2,4-triethylpentanediol-1,3-monoisobutyrate (boiling point is unclear, because a compound having such structure does not seem to exist), toluene (111°C), methylene chloride (40°C), and fluorocarbons (-40°C).” For example, amyl acetate (121°C), which is an ester solvent, corresponds to the low boiling point solvent of claim 1. Wang also discloses on page 6, line 45, to page 7, line 4, several ethers which are used as a plasticizer. Among these, triethylene glycol dimethyl ether (240°C) corresponds to the high boiling point solvent of claim 1.

However, Wang does not disclose a mixture of low and high boiling point solvents, for example, a mixture solvent comprising amyl acetate and triethylene glycol dimethyl ether. It is important to emphasize that the superior effects of the present invention are obtained by combining the specific low boiling point solvent and high boiling point solvent as recited in claim 1. Wang only discloses the use of amyl acetate and triethylene glycol dimethyl ether individually, and does not disclose or suggest the use of the combination i.e. amyl acetate and triethylene glycol dimethyl ether together.

In addition, in Examples 1-3, Wang uses polyacrylate (which does not have a boiling point, since when it is heated at high temperatures, it decomposes thermally) and dibutyl phthalate

(339°C) as the plasticizer and acetone (56°C) and ethyl acetate (76°C) as the organic solvents. Dibutyl phthalate has a boiling point of 339°C, which is within the temperature range of the high boiling point solvent required by the claims. However, the high boiling point solvent in claim 1 is limited to an ether solvent and dibutyl phthalate is an ester. Thus, dibutyl phthalate clearly does not qualify as the high boiling point solvent in claim 1.

In Examples 4-9, Wang uses polyacrylate (no boiling point as explained above) and dibutyl phthalate (339°C) and butyl benzyl phthalate (370°C) as the plasticizer and methyl ethyl ketone (80°C) and ethyl acetate (76°C) as the organic solvents. Dibutyl phthalate and butyl benzyl phthalate have boiling points of 339°C and 370°C respectively, which is within the temperature range of the high boiling point solvent required by the claims. However, the high boiling point solvent in the claims is limited to an ether solvent. Dibutyl phthalate and butyl benzyl phthalate are esters, and therefore, do not read on the high boiling point solvent in claim 1.

Thus, since for the reasons noted above, Wang fails to teach or suggest all the limitations of claims 1-6, this rejection cannot be sustained and should be withdrawn.

In further support of the unobviousness of the present invention, Applicant has submitted a Rule 1.132 Declaration demonstrating the unexpected and superior properties of the present invention. As the Examiner already knows, presence of a property not possessed by the prior art is evidence of nonobviousness. *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963).

As explained above, the paste according to the amended claims comprises at least one of ether solvents, ester solvents, and hydrocarbon solvents as the low boiling point solvent, and an ether solvent as the high boiling point solvent. The comparative experiments in the Declaration were conducted with changes to the solvent type, that is, the low boiling point solvents and the high boiling point solvents. The results of the Declaration clearly show the unexpected and superior properties of the mixture of low and high boiling point solvent recited in the claims.

Thus, for also these reasons, this rejection can no longer be sustained and should be withdrawn.

CONCLUSION

For the foregoing reasons, all the claims now pending in the present application are believed to be clearly patentable over the outstanding rejections. Accordingly, favorable reconsideration of the claims in light of the above remarks is courteously solicited. If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

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Respectfully submitted,

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Attachments

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